



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/633,104	08/01/2003	Darel Emmot	10001767-1	4784
22879 7590 05/01/2008 HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400				
EXAMINER SWEARINGEN, JEFFREY R				
ART UNIT 2145		PAPER NUMBER		
NOTIFICATION DATE 05/01/2008		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JERRY.SHORMA@HP.COM
mkraft@hp.com
ipa.mail@hp.com

Office Action Summary

Application No.

10/633,104

Applicant(s)

EMMOT, DAREL

Examiner

Jeffrey R. Swearingen

Art Unit

2145

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/02)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. In view of the appeal brief filed on 2/1/2008, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

Response to Arguments

2. Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

3. Claim 22 is objected to because of the following informalities: Claim 22 appears to be dependent upon claim 21, and not upon the method of claim 1, and is treated as such for purposes of compact prosecution. Appropriate correction is required.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Art Unit: 2145

5. Claims 21-22 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 21-22 are directed to a node comprising logic. This is software *per se*, which is not statutory subject matter. *In re Nuijten*, *Gottschalk v. Benson*.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Douglas et al. (US 5,530,809).

8. In regard to claim 1, 17, 21, Douglas disclosed:

obtaining priority information for the information; column 108, lines 9-42

ascertaining a remaining communication length for the information for each of the plurality of other channels; column 108, lines 47-56

determining a current demand for each of the plurality of other channels; and column 108, lines 46-56

routing the information entering at the first channel to one of the plurality of other channels based upon an evaluation that considers a combination of the obtained priority information, the ascertained communication length for each of the plurality of other channels, and the current demand for each of the plurality of other channels. Column 108, lines 57-65

9. In regard to claim 2, 18, Douglas disclosed:

determining a demand for channels coupled to remote nodes between a current node and a destination node and utilizing this priority information in determining a channel over which to route the information entering the at least one of the plurality of distributed switching nodes. Column 109, lines 28-42

10. In regard to claim 3, Douglas disclosed:

Art Unit: 2145

obtaining a destination node from a header portion of the information. Column 111, lines 32-50

11. In regard to claim 4, Douglas disclosed:

ascertaining the remaining communication length more specifically comprises ascertaining a quantifiable identification of a number of intermediate nodes that the information will traverse before reaching a destination node. Column 112, lines 26-42

12. In regard to claim 5, Douglas disclosed:

the obtaining priority information more specifically comprises retrieving a priority indicator from a header portion of the information. Column 111, lines 17-50

13. In regard to claim 6, Douglas disclosed:

the obtaining priority information more specifically comprises evaluating a payload portion of the information. Column 112, lines 16-25

14. In regard to claim 7, Douglas disclosed:

ascertaining the remaining communication length comprises receiving and evaluating network information communicated from other nodes in the network. Column 113, lines 3-26

15. In regard to claim 8, Douglas disclosed:

ascertaining the remaining communication length comprises computing the communication length based on a priori information about the network. Column 108, lines 9-32

16. In regard to claim 9, Douglas disclosed:

determining the current demand for each of the plurality of other channels comprises evaluating a state of an output queue for each of the other channels. Column 108, lines 9-21

17. In regard to claim 10, 19, 22, Douglas disclosed:

routing the information comprises a substantially balanced weighting of the obtained priority information, the ascertained communication length, and the current demand. Column 108, lines 57-67

18. In regard to claim 11, 20, Douglas disclosed:

routing the information comprises an unbalanced weighting of the obtained priority information, the ascertained communication length, and the current demand. Column 108, lines 57-67

19. In regard to claim 12, Douglas disclosed:

Art Unit: 2145

the information is embodied in a packet. Column 117, lines 1-14

20. In regard to claim 13, Douglas disclosed:

the information is embodied in a flit. Column 117, lines 1-14

21. In regard to claim 14, Douglas disclosed:

the information is embodied in a plurality of flits that collectively comprise an information packet.

Column 117, lines 1-14

22. In regard to claim 15, Douglas disclosed:

the routing is performed on a per-flit basis. Column 117, lines 1-14

23. In regard to claim 16, Douglas disclosed:

the routing is performed on a first flit, and remaining flits in information packet are routed to the same other channel as the first flit. Column 117, lines 1-14

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey R. Swearingen whose telephone number is (571)272-3921. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on 571-272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Art Unit: 2145

Jeffrey R. Swearingen
Examiner
Art Unit 2145

/J. R. S./
Examiner, Art Unit 2145

/Jason D Cardone/
Supervisory Patent Examiner, Art Unit 2145